



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,885	01/24/2001	Kimio Inoue	202182US3	2548
22850	7590	09/30/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			SORKIN, DAVID L	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/767,885

Applicant(s)

INOUE, KIMIO

Examiner

David L. Sorkin

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 August 2004 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation in independent claim 10, "sufficiently, but not completely, mesh" renders the claims indefinite. The term "sufficiently" has no particular meaning in the context used. One of ordinary skill in the art presented with a pair of intermeshing screw sets would not be able to state whether or not they "sufficiently" intermesh. Sufficient for what purpose? Considering that machines with non-intermeshing screws are known in the art, for at least some purpose there is never a degree of intermeshing is insufficient.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. While it is unclear what is being claimed, as discussed above with regard to section 112, second paragraph, consideration of the claims with regard to the prior art has been attempted to the degree possible.

6. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. (US 5,947,593). Regarding claim 10, Inoue ('593) discloses a twin-screw extruder comprising a barrel (3) having two intercommunicating chambers (4); and a screw set (1) rotatably mounted in each of said chambers so as to sufficiently, but not completely, mesh with one another (see Fig. 3 and applicant's admission in the remarks filed 8/13/04, on the page numbered "5" lines 7-8); each screw set comprising a rotor segment (a first segment 1b) comprising at least one kneading rotor having a plurality of kneading blades which provide a plurality of tip clearances (those of 7a,7b,7c) different from each other in the circumferential direction, said kneading rotor having a constant sectional shape (such as the cross-sectional shape of Fig. 4) in the axial direction, as viewed in a section transverse to the axial direction, and a screw segment (a second segment 1b) comprising at least one screw blade, said screw segment, except for crest portions, having the same sectional shape as said rotor segment comprising at least one kneading rotor, as viewed in a section transverse to the axial direction, except for

Art Unit: 1723

crest portions (see col. 6, line 50-col. 7 line 6; Figs. 6-8). Regarding claim 11, the rotor segment provides tip clearances different from each other in the axial direction (see col. 3, lines 27-32; Fig. 1). Regarding claim 12, as seen in, for example, Fig. 3 which shows  $C_3$  symmetry (rotation of 120 degree yields equivalent position), said same sectional shape is symmetrical. Regarding claim 13, "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" *Ex parte Masham 2* USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

### ***Response to Arguments***

7. Contrary to applicant's assertion, the examiner considers that the embodiment of Figs. 1-7 of Inoue ('593) is consistent with recitation of "extruder" in line 1 of instant independent claim 10. A definition of "extrude" according to Merriam-Webster's Collegiate Dictionary, 10<sup>th</sup> edition, is: "to force, press, or push out". The word "extuder" in no way excludes the embodiment of Figs. 1-7 of Inoue ('593).

8. Contrary to applicant's assertion, the rotation symmetry of Fig. 3 anticipates the new limitation of claim 12.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Sorkin

David L. Sorkin  
Primary Examiner  
Art Unit 1723